Termites Can Be Controlled

By Mitron Paniqui

AMONG THE insect pests, one of the most destructive is the termite. Unfortunately, this is a pest that thrives very well in the Philippines. The damage inflicted by termites on property all over the country has been estimated at over a million pesos per year. Termite development in our country is aided by many factors, among them high humidity, adequate rainfall, favorable temperatures and abundant food. Here, where the principal construction material is wood, termite control should receive greater emphasis.

Considered most destructive of the 39 known species of termites in the Philippines is the subterranean "milk" termite (**Coptotermes vastator**). This pest is widespread from sea level up to an altitude of 5000 feet. It can readily be recognized by the milky secretion of its soldiers. This secretion is a toxic substance that protects it from its mortal enemy—the ant. This termite builds covered runways or tubes over other materials to reach wooden structures. The "milk" termite requires a great deal of moisture; hence their usual point of attack is the dampest area of a building.

Another common type is the **Macrotermes gilvus** Hagen, a termite that builds mounds in the open field, around fence posts, park benches and dead logs. Although this type is not as destructive as the "milk" termite, it ruins gardens, grazing land and disfigures the landscape.

The **Heterotermes philippinensis** is a rare type. Its size and habits are like those of Coptotermes. They also inflict damage on buildings and woodwork.

The Heterotermes can be distinguished by the narrow and rectangular shape of the heads of its soldiers.

There are many ways of controlling termites. One of the most important is the adoption of good construction practices. It is necessary that wood is put out of the reach of termites. This is usually achieved by constructing concrete foundations and floor slabs and placing the wordwork above them. Once this is done, additional measures should be adopted such as putting metal shields over the concrete and digging narrow trenches around the foundations and filling them with cresote or oil reguarly. This method, however, is both expensive and unsightly.

A better method would be to use woods that are impervious to termite attacks, such as ipil or molave. However, if one cannot afford this kind of lumber, one can have the wood treated with chemicals. The initial cost is rather high but in the long run it is economical.

Good sanitation and efficient drainage all help in termite control. Damp areas and depressions that catch water should be drained and thoroughly dried.

AN EFFECTIVE supplement to good construction methods is the use of soil poisons. Soil poisons can be sprayed on the ground or mixed with the soil before the construction of the building. Soil poisons can also be applied around the foundations of existing buildings or injected into cracks and holes in the concrete.

Among the chemicals now in common use as soil poisons are the following: (1) Aldrin, .5 to 1% of the effective ingredient in No. 2 fuel oil, applied at the rate of 1 pint per square foot or 4 gallons per 10 cubic feet of soil, can show effective results for a period of seven years. (2) Benzene hexachloride, containing 0.8% of the gammar isomer in No. 2 fuel oil or in water emulsion, applied at the rate of 1 pint per square foot or 2.5 gallons per 10 cubic feet of soil, is effective for 8 years. (3) Chlordane, at a concentration of 2.0 per cent of the active ingredient in No. 2 fuel oil or in water emulsion applied at the rate of 2 pints per square foot or 7.5 gallons per 10 cubic feet of soil. This chemical is better than the others because it is less harmful to the plants. (4) D.D.T., 50% in No. 2 fuel oil, applied 5 gallons to 10 cubic feet of soil, is effective for 4 years. (5) Dieldrin is used like D.D.T. (6) Heptacholor, 1 to 5% in No. 2 fuel oil or in water emulsion, applied at the rate of 0.5 pint per square foot or 3.75 gallons per 10 cubic feet of soil, is effective for 4 years. (7) Penta-

chlorophenol, 5% in No. 2 fuel oil applied at the rate of 7 gallons per 10 cubic feet of soil. (8) Toxaphene, 5% of the active ingredient in No. 2 fuel oil, applied at the rate of 1 pint per square foot of soil, has an effective duration of 6 years .(9) Trichlobrobenzene, a chemical diluted 1 part to 3 parts of No. 2 fuel oil (25% by volume) and applied at the rate of 5 gallons per 10 cubic feet of soil.

All these chemicals are on the market under varying trade names. The customer must examine carefully the composition to determine the active ingredient. Fuel oil is the best material for suspension because it stays longer.

Care should be exercised in handling these chemicals. Most of them are irritants and should not be allowed to come in contact with the skin or the eyes. They should also be kept away from children and domestic animals. When treating the soil with these poisons, do not include areas intended for planting.

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Electrified Insecticide

A METHOD of electrically charging insecticide and fungicide dust particles to make them adhere more thickly and firmly has been developed for the first time on a commercial scale by a United Kingdom firm, and incorporated in a new dusting machine.

The revolutionary development is quite simple. The dust passes through a very high electrostatic field so that each individual particle acquires a positive charge. When the particle approaches the surface of the plant being treated, an equal and opposite charge is induced behind the plant, thus drawing the particle to it. As the object being sprayed now has a negative charge, the positively charged particle is held to the surface.

Because like forces repel each other, the dust particles are evenly distributed over the surface. At the same time the dusts are deposited in almost equal quantities on the lower surfaces of leaves.

It is estimated that total deposits obtained by by this new method of spraying are from four to ten times the amounts obtained by conventional means.